



SEQUENCE LISTING

#7

<110> Audonnet, Jean-Christophe

<120> Improved DNA Vaccines for Farm Animals, In particular bovines and procines

<130> 454313-3154.1

<140> 09/760,574

<141> 2001-01-16

<160> 106

<170> PatentIn version 3.0

<210> 1

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide

<400> 1

gatctgcagc acgtgtctag aggatattcga attcgcggcc

40

<210> 2

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide

<400> 2

gatccgcggc cgcgaattcg atattcctcta gacacgtgct

40

<210> 3

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide

<400> 3

ttggggaccc ttgattgttc

20

<210> 4

<211> 21

<212> DNA

<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 4
ctgtaggaaa aagaagaagg c

21

<210> 5
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 5
ctccatgtcg acttggggac ccttgattgt

30

<210> 6
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 6
ctccatgtcg acctgtagga aaaagaagaa

30

<210> 7
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 7
ttgtcgacat ggccgctcgc ggcggtgctg

30

<210> 8
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 8
gcagggcagc ggctagcgcg g

21

<210> 9
<211> 51

<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 9
ctgcacgagc tccggttcta cgacattgac cgctggtaa gacggactga g

51

<210> 10
<211> 56
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 10
gacccctcagt ccgtcttgac cacgcggtca atgtcgtaga accggagctc gtgcag

56

<210> 11
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 11
aaaatttcga tatccgccgc ggggcgaccg gcgacaacg

39

<210> 12
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 12
ggaagatctt cagtccgtct tgaccacgcg gtc

33

<210> 13
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 13
tcgtgcctgc ggcgcaaggc ccgggcgcgc ctgtagt

37

<210> 14
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 14
ctagactaca ggcgcgcccg ggccttgcg cgcaggc

37

<210> 15
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 15
gcaccgctgc ccgagttctc cgcgaccgcc acgtacgact agt

43

<210> 16
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 16
ctagactagt cgtacgtggc ggtcgcgagg aactcgggca gcg

43

<210> 17
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 17
aaaatttcga tatcccggcg ggggctcgcc gaggaggcg

39

<210> 18
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 18
ggaagatctc tagtcgtacg tggcggtcgc gg

32

<210> 19
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 19
tttctgcaga tgcaagggcc gacattggcc gtg

33

<210> 20
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 20
tttctagatt agggcgtagc gggggcgggc g

31

<210> 21
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 21
aaaatttoga tatccccgc gccgcgggtg acggtatac

39

<210> 22
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 22
ggaagatctt tagggcgtag cggggcggg cg

33

<210> 23
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 23
aaattttctg cagatggcga caacagccat gagg 34

<210> 24
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 24
ttaaggatcc tcatttacta aaggaaagat tgttg 35

<210> 25
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 25
aattttggat cctcatgtgg tggattttcc tacatctac 39

<210> 26
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 26
aaaatttcacg tgaacataac agaagaattt tatcaatc 38

<210> 27
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 27
acgcgtcgac atgtccaacc atacccatca tc 32

<210> 28
<211> 38

<212> DNA
 <213> Artificial Sequence
 <220>
 <223> oligonucleotide
 <400> 28
 ttaaaatcta gattagatct gtgtagttga ttgatttg 38

<210> 29
 <211> 33
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> oligonucleotide
 <400> 29
 ttttaaggat ccgctaaagc caagcccaca tcc 33

<210> 30
 <211> 33
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> oligonucleotide
 <400> 30
 ttaaaatcta gattagatct gtgtagttga ttg 33

<210> 31
 <211> 36
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> oligonucleotide
 <400> 31
 cataccgtcg acatgaagaa actagagaaa gccctg 36

<210> 32
 <211> 40
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> oligonucleotide
 <400> 32
 cataccggat cctcaggctg catatgcccc aaaccatgtc 40

<210> 33
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 33
catgacgcgg ccgctatgaa gaaactagag aaagccctg

39

<210> 34
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 34
catgacagat ctttaggctg catatgcccc aaaccatgtc

40

<210> 35
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 35
catgacgtcg acatgacgac tactgcattc ctg

33

<210> 36
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 36
catgacagat cttcaacgtc ccgaggtcat ttgttc

36

<210> 37
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 37
catgacgcgg ccgctatgac gactactgca ttcttg 36

<210> 38
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 38
catgacagat ctcaagcgaa gtaatcccgg tgggtg 35

<210> 39
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 39
actgtatcta gaatgaccac cacagctttc ctaatc 36

<210> 40
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 40
actgtaagat ctttaagtat tcaactccagc acccatagc 39

<210> 41
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 41
catgacgcgg ccgcctatg accaccacag ctttccta c 41

<210> 42
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 42
catgacagat ctttatatga actctgagaa gtagtc 36

<210> 43
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 43
cataccgtcg acatgagaaa gaaattggag aaggcactg 39

<210> 44
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 44
cataccggat cctcatgctg catgagcacc aaaccatgc 39

<210> 45
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 45
catgacgcgg ccgctatgag aaagaaattg gagaaggcac tg 42

<210> 46
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 46
cataccagat cttcatgctg catgagcacc aaaccatgc 39

<210> 47
<211> 39

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 47
 catatcgctcg acatggaata ttggaaacac acaaacagc 39

<210> 48
 <211> 38
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 48
 catgacgata tctagctgca gtttttcgga acttctgt 38

<210> 49
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 49
 catactgcgg ccgctttaat tcaagagAAC aat 33

<210> 50
 <211> 35
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 50
 catatcgata tctagctgca gtttttcgga acttc 35

<210> 51
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 51
 catatcgctcg acatgatcat cACAAACACA atcata 36

<210> 52
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 52
catgaccaga tcttattgtc tatttgtcag tatata 36

<210> 53
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 53
catactgcgg ccgctcaaat agacataaca aaactgcaac gt 42

<210> 54
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 54
catatcgata tctatgcact agattgatac caacttccaa c 41

<210> 55
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 55
ttttaagata tcatgcccgc tggtagcggt ctttgg 36

<210> 56
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 56
ttttaaggat ccctacaggg cgtcggggtc ctcgctctc 39

<210> 57
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 57
ttttaaggat ccctagtggc ccaccttgac cacgcggtc 39

<210> 58
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 58
aaaatttcga tatccacctc ggctcgcgcg acgcccggg 39

<210> 59
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 59
ttttaagata tcatggcctc gctcgcgcgt gcgatg 36

<210> 60
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 60
ttttaagat cttaaggcc ccgcctggcg gtagtag 37

<210> 61
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 61
ttttaagat ctttagggg aggcgtcgta gcgctg 36

<210> 62
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 62
aaaatttcga tatccacggc gtcggcacg acgccaac 39

<210> 63
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 63
aattttgata tcatgctgct cgcagcgcta ttggcg 36

<210> 64
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 64
aattttggat ccctacggac cgggctgcgc ttttag 36

<210> 65
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 65
aaattttgga tccctagcgg tggcgcgaga cgcccggcgc 40

<210> 66
<211> 39

<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 66
aaaatttcga tatccacctt cccccgccc gcgtaccg 39

<210> 67
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 67
cactacgata tcatggctca tcagtgtgca 30

<210> 68
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 68
cactacagat ctttatcgtg atgtactggg 30

<210> 69
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 69
ctcaccgtcg acatgagatg ttctcacaaa 30

<210> 70
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 70
ctcacctcta gactaggcct cccattgctc 30

<210> 71
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 71
cacctcgat cctttgccga tggcaacggc

30

<210> 72
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 72
cacctcgat ccttagactt cggtttgcc caa

33

<210> 73
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 73
cactcagtcg acatgggagg cctagacgat

30

<210> 74
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 74
cactcatcta gattaccggc cataacttgac

30

<210> 75
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 75
cactacggat ccgtgtcacg cggccgactc 30

<210> 76
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 76
cactacggat ccttaaacag ctcgtttgcc gcc 33

<210> 77
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 77
cactacgata tcatggtaa tagctgtaca 30

<210> 78
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 78
cactactcta gactatcgcc gtacggcact 30

<210> 79
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 79
cactacgata tcatgttgga gaaatgcttg 30

<210> 80
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 80
cactacagat ctctaaggac gacccattg 30

<210> 81
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 81
cactacggat ccgccagcaa cgacagcagc tcc 33

<210> 82
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 82
cactacggat ccttagacct caactttgcc cct 33

<210> 83
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 83
cacatcctgc agatgggggc gtccttagat gac 33

<210> 84
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 84
cacatctcta gattatttgg catatttgac 30

<210> 85
<211> 30

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 85
 cactacggat ccgtgagtcg cggccgactg 30

 <210> 86
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 86
 cactacggat ccttaaacag cttttctgcc acc 33

 <210> 87
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 87
 ctccatgata tcatggaagc aaaactattc 30

 <210> 88
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 88
 ctccatcaga tcttaaagtc atattctgca 30

 <210> 89
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> oligonucleotide

 <400> 89
 tccgcggccg cacatgctaa caattccaca 30

<210> 90
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 90
tccgcggccg cttacattga ttctagtttc ac 32

<210> 91
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 91
cacctggtcg acatgaatcc aaatcagaag 30

<210> 92
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 92
cacctgtcta gactacttgt caatggtgaa 30

<210> 93
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 93
cactacgaat tcacaaattg ggaatcaaaa t 31

<210> 94
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 94
aatttgtgaa ttcgcgggccg cggatccggt

30

<210> 95
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 95
ctgcacgtcg acatgaagac tgtcattgcc

30

<210> 96
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 96
gatattctcag atgcaaattgt tgca

24

<210> 97
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 97
caccgcggat cccttccaga aaatggcagc aca

33

<210> 98
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 98
caccgcggat ccttagtctt tgtatccoga ctt

33

<210> 99
<211> 30
<212> DNA
<213> Artificial Sequence

<220>

<223> oligonucleotide

<400> 99

cactcagata tcatgaatcc aaagcaaaag

30

<210> 100

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide

<400> 100

cactcatcta gattatatag gcatgagatc

30

<210> 101

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide

<400> 101

cactacggat ccttcaagca atatgagtgc gac

33

<210> 102

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide

<400> 102

cactacggat ccttatgaag tccaccatac tct

33

<210> 103

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> oligonucleotide

<400> 103

catatcgtcg acatgtggct gcagaacctg cttctc

36

<210> 104

<211> 34

<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 104
catgaccaga tcttcacttc tgggctgggt ccca

34

<210> 105
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 105
catatcgtcg acatgtggct gcagaacctg cttctc

36

<210> 106
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> oligonucleotide

<400> 106
catgaccaga tcttcacttc tgggctgggt cccagca

37